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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,716	03/22/2004	Robert Tod Dimpsey	AUS920040060US1	5962

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EXAMINER	
NGUYEN, PHILLIP H	
ART UNIT	**PAPER NUMBER**
2191	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/808,716	DIMPSEY ET AL.	
	Examiner	Art Unit	
	Phillip H. Nguyen	2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2005,2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the original filing date of March 22, 2004. Claims 1-24 are pending and have been considered below.

Examiner's Note:

2. Applicant appears to be attempting to invoke 35 U.S.C. 112 6th paragraph in claims 10 and 11 by using "means-plus-function" language. However, Examiner notes that the "means" for identifying and generating in specification appears to be software. Since no other specific structure limitations are disclosed in the specification, these means have not invoked 35 U.S.C. 112 6th paragraph when considered below.

Specification

3. The incorporation of essential material in the specification by reference to a publication is improper (**see the amended page 2 of the specification**). Applicant is required to amend the disclosure to include the material incorporated by reference, if the material is relied upon to overcome any objection, rejection, or other requirement imposed by the Office. The amendment must be accompanied by a statement executed by the applicant, or a practitioner representing the applicant, stating that the material being inserted is the material previously incorporated by reference and that the amendment contains no new matter. 37 CFR 1.57(f).

4. The use of the trademark **JAVA™** has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner, which might adversely affect their validity as trademarks.

Double Patenting

5. Claims 1-8, 10-17, and 19-24 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2, 4-10, 11-12, 14-20, 21-22, and 24-25 of copending Application No. 10/806,917. Although the conflicting claims are not identical, they are not patentably distinct from each other because limitations in one claim can obviously be applicable in the corresponding claim.

The following tables show few claims to demonstrate the reason for rejection (based on original claims).

Instant Application No.: 10/808,716	Copending Application No: 10/806,917
1. A method in a data processing system for presenting coverage data for code, the method comprising: - obtaining the coverage data containing instruction access indicators associated with the code;	1. A method in a data processing system for presenting coverage data relating to data access occurring during execution of code, the method comprising: - obtaining the coverage data containing data access indicators

- identifying particular instruction access indicators that have been set by a processor in the data processing system in response to execution of the code by the processor to form set instruction access indicators, wherein each set instruction access indicator is associated with a portion of the code; - generating a presentation for the coverage data, wherein the set instruction access indicators are identified in the presentation.	associated with memory location; - identifying the data access indicators that have been set by a processor in the data processing system in response to access of memory locations during execution of the code by the processor to form set data access indicators, wherein each set instruction access indicator is associated with a portion of the memory locations allocated for the code; and - generating a presentation for coverage data, wherein the set data access indicators are identified in the presentation.
2. The method of claim 1 further comprising: - identifying unset instruction access indicators that have remained unset during the execution of the code by the processor; wherein the unset instruction	2. The method of claim 1 further comprising: - identifying unset data access indicators that have remained unset during execution of the code by the processor, wherein the unset data access indicators are identified

access indicators are identified in the presentation.	in the presentation.
3. The method of claim 2, wherein the set instruction access indicators are identified in the presentation using a first color and wherein the unset instruction access indicators are identified in the presentation using a second color.	4. The method of claim 2, wherein the set data access indicators are identified in the presentation using a first color and wherein the unset instruction access indicators are identified in the presentation using a second color.
4. The method of claim 2, wherein the set instruction access indicators are identified in the presentation using a graphical indicator and wherein the unset instruction access indicators are identified in the presentation using the graphical indicator.	5. The method of claim 2, wherein the set data access indicators are identified in the presentation using a graphical indicator and wherein the unset instruction access indicator are identified in the presentation using the graphical indicator.

Although, the conflicting claims are not identical, they are not patentably distinct from each other because both applications use steps that are clearly similar. For instance, Claim 1 of the instant application states, "obtaining the coverage data containing instruction access indicators associated with the code", claim 1 of the copending application 10/806,917 recites, "obtaining the coverage data containing data access indicators associated with memory locations". In effect both state the same

thing. They are both getting coverage data that containing indicators associated with instructions or memory location where the instructions are located.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 19-24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 19 recites a computer readable medium which is disclosed as signals ("digital and analog communications links, wired or wireless communications links using transmission forms, such as radio frequency, light wave transmission" paragraph 0158). The specification provides intrinsic evidence that the computer readable medium is intended to cover radio frequency and light wave transmission. Such are currently not believed to enable the computer readable medium to act as a computer hardware component and realize its functionality absent being claimed in combination with the necessary hardware to receive and convert the radio frequency and light wave to computer usable code. Claims 20-24 directly or indirectly depend on claim 19, and therefore, have been addressed in connection with the rejection set forth to claim 19.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-2, 5-11, 14-20, and 23-24 are rejected under 35 U.S.C. 102(e) as being anticipated by DeWitt, JR et al. (United States Patent Application Publication No.: US 2005/0071817 A1).

As per claim 1:

DeWitt discloses an method in a data processing system for presenting coverage data for code, the method comprising:

- obtaining the coverage data containing instruction access indicators associated with the code ("**receiving a bundle. A bundle is a grouping of instructions**" paragraph 0073);
- identifying particular instruction access indicator that have been set by a processor in the data processing system in response to execution of the code by the processor to form set instruction access indicators ("**determines that an instruction associated with an indicator is present, a signal is sent to indicate that a marked instruction is being executed**" paragraph 0075,

this means, the indicator has been set to indicate that the instruction is being executed), wherein each set instruction access indicator is associated with a portion of code ("**a mark instruction is an instruction associated with a performance indicator**" paragraph 0075); and

- generating a presentation for the coverage data ("**generate a data structure, such as trees to track and present information regarding the execution of the program**" paragraph 0180), wherein the set instruction access indicators are identified in the presentation (**information regarding the execution of the program including set instruction access indicators and unset instruction access indicators**)

Note: The word "for" is recited in the preamble and the body of the claim indicates intended use and as such does not carry patentable weight. The limitations following the phrase "for" describe only intended use but not necessarily required functionality of the claim. Applicant is advised to amend the claim so the claim limitations are recited in a definite format.

As per claim 2:

DeWitt discloses the method as in claim 1 above; and further discloses:

- identifying unset instruction access indicators that have remained unset during the execution of the code by the processor ("**determines that an instruction associated with an indicator is present, a signal is sent to indicate that a marked instruction is being executed**" paragraph 0075,

this means that a signal is not sent when instructions associated with indicators are not present, which also means that those indicators stay unset); wherein the unset instruction access indicators are identified in the presentation (**unset instruction access indicators must be in the tree in order to fully present the information regarding the execution of the program**).

As per claim 5:

DeWitt discloses the method as in claim 2 above; and further discloses:

- wherein the generating step is performed in response to an event ("**the program is executed and the data is collected**" paragraph 0179).

As per claim 6:

DeWitt discloses the method as in claim 5 above; and further discloses:

- wherein the event is at least one of a completion of the execution of the code, expiration of a time, and the execution of a selected type of instruction in the code ("**the program is executed and the data is collected from the performance monitor unit with the process terminating thereafter**" paragraph 0179).

As per claim 7:

DeWitt discloses the method as in claim 1 above; and further discloses:

- wherein the portion of the code is a single instruction in the code ("**an instruction in the bundle is identified**" paragraph 0089) and wherein every instruction in the code is associated with a different instruction access indicator ("**a spare field may be used to hold an indicator that identifies the instruction**" paragraph 0072, **this means, every instruction associates with a different indicator**).

As per claim 8:

DeWitt discloses the method as in claim 1 above; and further discloses:

- wherein the portion of the code is a subroutine in the code ("**subroutine 600 includes a number of instructions in which instructions 602, 604, and 606 are associated with performance indicators**" paragraph 0085).

As per claim 9:

DeWitt discloses the method as in claim 1 above; and further discloses:

- wherein the portion of the code is a branch instruction in the code ("**all branch instructions would be flagged for counting**" paragraph 0187).

As per claim 10:

DeWitt discloses a data processing system for presenting coverage data for code, the data processing system comprising:

- obtaining means for obtaining the coverage data containing instruction access indicators associated with the code ("**Instruction cache 300 receives bundles. A bundle is a grouping of instructions**" paragraph 0073);
- identifying means for identifying particular instruction access indicators that have been set by a processor in the data processing system in response to execution of the code by the processor to form set instruction access indicators ("**determines that an instruction associated with an indicator is present, a signal is sent to indicate that a marked instruction is being executed**" paragraph 0075, **this means, the indicator has been set to indicate that the instruction is being executed)**, wherein each set instruction access indicator is associated with a portion of the code ("**a mark instruction is an instruction associated with a performance indicator**" paragraph 0075); and
- generating means for generating a presentation for the coverage data ("**generate a data structure, such as trees to track and present information regarding the execution of the program"** paragraph 0180), wherein the set instruction access indicators are identified in the presentation (**information regarding the execution of the program including set instruction access indicators and unset instruction access indicators**).

Note: The word "for" is recited in the preamble and the body of the claim indicates intended use and as such does not carry patentable weight. The limitations following the phrase "for" describe only intended use but not necessarily required functionality of

the claim. Applicant is advised to amend the claim so the claim limitations are recited in a definite format.

As per claim 11:

DeWitt discloses the data processing system as in claim 10 above; and further discloses:

- wherein the identifying means is a first identifying means and further comprising:
- second identifying means for identifying unset instruction access indicators that have remained unset during the execution of the code by the processor ("**determines that an instruction associated with an indicator is present, a signal is sent to indicate that a marked instruction is being executed**" paragraph 0075, **this means that a signal is not sent when instructions associated with indicators are not present, which also means that those indicators stay unset**); wherein the unset instruction access indicators are identified in the presentation (**unset instruction access indicators must be in the tree in order to fully present the information regarding the execution of the program**).

As per claim 14:

DeWitt discloses the data processing system as in claim 11 above; and further discloses:

- wherein the generating means is performed in response to an event ("**the program is executed and the data is collected**" paragraph 0179).

As per claim 15:

DeWitt discloses the data processing system as in claim 14 above; and further discloses:

- wherein the event is at least one of a completion of the execution of the code, expiration of a time, and the execution of a selected type of instruction in the code ("**the program is executed and the data is collected from the performance monitor unit with the process terminating thereafter**" paragraph 0179).

As per claim 16:

DeWitt discloses the data processing system as in claim 11 above; and further discloses:

- wherein the portion of the code is a single instruction in the code ("**an instruction in the bundle is identified**" paragraph 0089) and wherein every instruction in the code is associated with a different instruction access indicator ("**a spare field may be used to hold an indicator that identifies the instruction**" paragraph 0072, **this means, every instruction associates with a different indicator**).

As per claim 17:

DeWitt discloses the data processing system as in claim 11 above; and further discloses:

- ("**subroutine 600 includes a number of instructions in which instructions 602, 604, and 606 are associated with performance indicators**" paragraph 0085).

As per claim 18:

DeWitt discloses the data processing system as in claim 11 above; and further discloses:

- wherein the portion of the code is a branch instruction in the code ("**all branch instructions would be flagged for counting**" paragraph 0187).

As per claim 19:

DeWitt discloses a computer program product in a computer readable medium for presenting coverage data for code, the computer program product comprising:

- first instructions for obtaining the coverage data containing instruction access indicators associated with the code ("**receiving a bundle. A bundle is a grouping of instructions**" paragraph 0073);
- second instructions for identifying particular instruction access indicators that have been set by a processor in the data processing system in response to execution of the code by the processor to form set instruction access

indicators ("**determines that an instruction associated with an indicator is present, a signal is sent to indicate that a marked instruction is being executed**" paragraph 0075, **this means, the indicator has been set to indicate that the instruction is being executed**), wherein each set instruction access indicator is associated with a portion of the code ("**a mark instruction is an instruction associated with a performance indicator**" paragraph 0075); and

- third instructions for generating a presentation for coverage data ("**generate a data structure, such as trees to track and present information regarding the execution of the program**" paragraph 0180), wherein the set instruction access indicators are identified in the presentation (**information regarding the execution of the program including set instruction access indicators and unset instruction access indicators**) .

Note: The word "for" is recited in the preamble and the body of the claim indicates intended use and as such does not carry patentable weight. The limitations following the phrase "for" describe only intended use but not necessarily required functionality of the claim. Applicant is advised to amend the claim so the claim limitations are recited in a definite format.

As per claim 20:

DeWitt discloses the computer program product as in claim 19 above; and further discloses:

- fourth instructions for identifying unset instruction access indicators that have remained unset during the execution of the code by the processor ("**determines that an instruction associated with an indicator is present, a signal is sent to indicate that a marked instruction is being executed**" paragraph 0075, **this means that a signal is not sent when instructions associated with indicators are not present, which also means that those indicators stay unset**); wherein the unset instruction access indicators are identified in the presentation (**unset instruction access indicators must be in the tree in order to fully present the information regarding the execution of the program**).

Note: The word "for" is recited in the body of the claim indicates intended use and as such does not carry patentable weight. The limitations following the phrase "for" describe only intended use but not necessarily required functionality of the claim. Applicant is advised to amend the claim so the claim limitations are recited in a definite format.

As per claim 23:

DeWitt discloses the computer program product as in claim 20 above; and further discloses:

- wherein the third instructions are performed in response to an event ("**the program is executed and the data is collected**" paragraph 0179).

As per claim 24:

DeWitt discloses the computer program product as in claim 23 above; and further discloses:

- wherein the event is at least one of a completion of the execution of the code, expiration of a time, and the execution of a selected type of instruction in the code ("**the program is executed and the data is collected from the performance monitor unit with the process terminating thereafter**" paragraph 0179).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 3, 4, 12, 13, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeWitt et al. (United States Patent Application Publication No.: US 2005/0071817 A1), in view of Lewis et al. (United States Patent Application Publication No.: US 2002/0157086 A1).

As per claim 3:

DeWitt discloses the method as in claim 2 above, but does not explicitly discloses:

- wherein the set instruction access indicators are identified in the presentation using a first color and wherein the unset instruction access indicators are identified in the presentation using a second color.

However, Lewis discloses an analogous method presents a presentation, which is tree with different shapes and colors for code that executed and not yet executed ("**represents an unexecuted code segment as a diamond shaped node, an executing code segment as a square node, and an executed code segment as a circular node...(shape, color, shading, animation, sound,..)**" paragraph 0130).

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify DeWitt's approach to include Lewis's trees. One of ordinary skill would have been motivated to have DeWitt's trees contains different colors for different kinds of instruction access indicators to easily recognize and interpret for the viewer.

As per claims 12 and 22:

Recite the same limitations as in claim 3, and therefore, have been addressed in connection with the rejection set forth to claim 3 above.

As per claim 4:

DeWitt discloses the method as in claim 2 above, but does not explicitly discloses:

- wherein the set instruction access indicators are identified in the presentation using a graphical indicator and wherein the unset instruction access indicators are identified in the presentation using the graphical indicator.

However, Lewis discloses an analogous method presents a presentation including different colors and shapes indicators ("**represents an unexecuted code segment as a diamond shaped node, an executing code segment as a square node, and an executed code segment as a circular node...(shape, color, shading, animation, sound,..)**" paragraph 0130).

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify DeWitt's approach to include Lewis's tree. One of ordinary skill in the art would have been motivated to include colors and shapes to DeWitt's tree to indicate different kind instruction access indicator to easily recognize and interpret for the viewer.

As per claims 13 and 23:

Recite the same limitations as in claim 4, and therefore, have been addressed in connection with the rejection set forth to claim 4 above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phillip H. Nguyen whose telephone number is (571) 270-1070. The examiner can normally be reached on Monday - Thursday 10:00 AM - 3:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y. Zhen can be reached on (571) 272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PN
01/27/2007